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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,040	11/21/2005	Susanne Emig	05-549-CIP	2756
34704	7590	09/14/2011	EXAMINER	
BACHMAN & LAPOINTE, P.C. 900 CHAPEL STREET SUITE 1201 NEW HAVEN, CT 06510			HELM, CARALYNNE E	
ART UNIT	PAPER NUMBER		1615	
MAIL DATE	DELIVERY MODE			
09/14/2011	PAPER			

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/555,040

Filing Date: November 21, 2005

Appellant(s): EMIG ET AL.

Gregory LaPointe
For Appellant

This is in response to the appeal brief filed June 21, 2011 appealing from the Office action mailed October 22, 2010.

(1) Real Party in Interest

The examiner has no comment on the statement, or lack of statement, identifying by name the real party in interest in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims and Amendments After Final

The claims listed by appellant are close to the form of the amendment that was agreed upon for entry into the record. However, the claims present new issues under 35 USC 112, second paragraph and 35 USC 112, fourth paragraph. Claims 45-50, 58-66, 76, 78-86, and 90-91 lack antecedent basis because they each claim "a preparation" while their parent claim recites "a cosmetic preparation". In addition, the scope of claim 90 is broader than its parent claim. Here the preparation is claimed as "an agent for fixing lipstick or lip rouge, a care foundation, a skin care agent or a sun protection agent" which encompasses more compositions than the "lip rouge, blusher, makeup, eyeshadow, camouflage and concealer" that are the possible cosmetic preparations according to its parent claim. These are issues of form and can be addressed after the status of the appeal is decided.

As of the amendment listed in the appeal brief, the status of the claims is: Claims 44-50, 58-61, 63-66, 76, 78-86, and 90-91 are rejected. Claim 62 is objected to. Claims 1-43 and 88-89 have been canceled. Claims 51-57, 67-75, 77, 87, and 92 have been withdrawn from consideration.

(4) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(5) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(6) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is close to the form of the amendment that was agreed upon for entry into the record.

(7) Evidence Relied Upon

US Patents and Patent Publications:

5,599,533	STEPNIEWSKI ET AL.	2-1997
6,171,580	KATSUYAMA ET AL.	1-2001
6,391,322	ROULIER ET AL.	5-2002
6,503,526	KRZYSIK ET AL.	1-2003
2003/0064046	OMURA ET AL.	4-2003
2004/0258638	WENDEL ET AL.	12-2004

Non-Patent Literature:

Abil EM90 reference 2003

(8) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

The four factual inquiries of *Graham v. John Deere Co.* have been fully considered and analyzed in the rejections that follow.

Claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 90-91 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. in view of Omura et al., Krzysik et al. and as evidenced by the Abil® EM 90 reference.

Roulier et al. teach a set of compositions that are in the form of water-in-oil emulsions yielding a lipophilic outer phase and hydrophilic inner phase (see abstract). The compositions are taught to contain an oily phase with at least one wax and a silicone emulsifier (see claim 1). Abil® EM 90 is one preferred emulsifier (see column 4 lines 7-8). The Abil EM90 reference teaches that this emulsifier is known under the name cetyl PEG/PPG-10/1 dimethicone, an instantly recited non-ionogenic, water-in-oil emulsifier (see page 1 and page 2 column 1; instant claims 64-66). This emulsifier is taught to be introduced into the composition in a volatile or non-volatile silicone oil (see column 3 lines 62-65; instant claim 61). The waxes are envisioned as fatty esters that are solid at 25°C and more particularly have a melting temperature above 65°C (see column 3 lines 4-5 and 8-12; instant claim 44). These waxes are present at from 5% to 15% (see column 3 lines 26-30; instant claims 58-59). The oily phase is also taught to preferably contain additional fatty substances where volatile silicone oils are envisioned (see column 4 lines 39-40 and 43 and claim 8; instant claim 44). As lipophilic

components, the emulsifier, wax and silicone oils would be in the outer lipophilic phase. Roulier et al. go on to teach the inclusion of filler materials in the form of zinc oxide, titanium oxide and titanium dioxide as well as sunscreen agents (see column 4 lines 17-26 and column 5 lines 36-37; instant claims 76 and 86). The filler components are present at 1 to 12% (see column 4 lines 53-55; instant claims 78-80). Roulier et al. teach their composition for use to treat, care for, protect or cleanse the skin as well as in skin and lip make up products which makes them cosmetic compositions (see column 5 lines 5-18; instant claims 44 and 90). Roulier et al. do not explicitly teach pentaerythritol tetrabehenate as the fatty ester or decamethyl cyclopentasiloxane as the volatile silicone oil.

Omura et al. teach water-in-oil emulsions for cosmetic compositions (see abstract). These compositions also teach the inclusion of silicone oils in the oily phase and exemplify several particular varieties (see paragraph 37). Decamethyl cyclopentasiloxane is taught within this set of exemplified options (see paragraph 37).

Krzsik et al. teach a set of fatty esters with a melting point above 35°C that are suitable for use in compositions intended to protect or repair skin as well as cosmetic applications (see column 4 lines 5-9 and 14-17 and column 5 lines 45-46 and 64-65). One of these fatty esters that also has the preferred melting point of Roulier et al. is pentaerythritol tetrabehenate (see column 5 lines 45-46 and 64-65, column 6 line 16; instant claims 44-50). This compound is a polyvalent ester with an at least divalent alcohol and at least two acid residues that has the form of formula I where R is a branched hydrocarbon residue with 5 carbons, W=X=Y=Z: -OC(O)-, and R¹=R²=R³=R⁴:

linear long-chain hydrocarbon residue with 21 carbons (instant claims 44-45). The sum of the carbon atoms in the alcohol and carboxylic acid residues in this compound is 84 (see instant claim 48).

In light of the teachings of Krzysik et al. of functionally equivalent fatty acid esters that are solid at room temperature and are suitable for the applications of Roulier et al., it would have been obvious to one of ordinary skill in the art to select any one of them that meets the preference of Roulier et al. and melts above 65°C. Thus it would have been obvious to one of ordinary skill in the art at the time of the invention to select pentaerythritol tetrabehenate from the list of options in Krzysik et al. Additionally, since both Roulier et al. and Omura et al. teach water-in-oil emulsions that include silicone oils in the oily phase, it would have been obvious to select any particular silicone oil taught by Omura et al. to use in the invention of Roulier et al. Thus the selection of decamethyl cyclopentasiloxane would have also been obvious to this ordinarily skilled artisan. Routine optimization that would have been obvious to one of ordinary skill in the art would have achieved the claimed proportions of volatile- and non-volatile silicone oil (see instant claim 61). According to MPEP 2112.01, "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present." This treatment results from *In re Spada*, which states that, "Products of identical chemical composition can not have mutually exclusive properties." *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Since all the claimed components would have been present in the claimed arrangement in the composition based upon the

combined references, and absent evidence to the contrary, the composition would also have the same claimed viscoelastic properties (see instant claim 91). Therefore claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 90-91 are obvious over Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference.

Claims 44, 61, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference as applied to claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 above, and further in view of Stepniewski et al.

Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference make obvious the composition of claim 44 with volatile and non-volatile silicone oils. This modified reference does not explicitly teach a particular non-volatile silicone oil.

Stepniewski et al. teach stable water-in-oil emulsions for personal care preparations (see abstract). They go on to teach the inclusion of non-volatile silicone oils in the compositions and provide a listing of several known suitable varieties (see column 3 lines 21-22). Particular non-volatile silicone oils include cetyl dimethicone (see column 3 lines 26-27).

It would have been obvious to one of ordinary skill in the art to select cetyl dimethicone as the non-volatile silicone oil in the invention of Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference since it was a known particular variety of the non-volatile silicone oil utilized in water-in-oil emulsions

as taught by Roulier et al. Therefore claims 44, 61, and 63 are obvious over Roulier et al. in view of Omura et al., Krzysik et al., and Stepniewski et al. as evidenced by the Abil® EM 90 reference.

Claims 44, 76, and 81-83 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference as applied to claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 above, and further in view of Katsuyama et al.

Roulier et al. in view of Omura et al. and Krzysik et al. as evidenced by the Abil® EM 90 reference make obvious the composition of claim 44 with zinc oxide at the claimed proportion and sunscreen actives (see instant claims 44, 76, and 82). This modified reference does not explicitly teach the size of the zinc oxide particles.

Katsuyama et al. teach ultraviolet-screening zinc oxide particles (see abstract). Specifically, Katsuyama et al. teach the size of zinc oxide particles for sunscreen purposes is 50 nm to 100 nm (see column 2 lines 12-23; instant claim 81). In addition, they teach that the particles can perform their intended screening function when incorporated at 10 wt% into a topical composition (see example 4; instant claim 83).

Since Roulier et al. teaches the incorporation of zinc oxide as well as sunscreen agents, it would have been obvious to one of ordinary skill in the art at the time of the invention to use the zinc oxide particles of Katsuyama et al. as the zinc oxide particles in Roulier et al. in view of Omura et al. and Krzysik et al. and as evidenced by the Abil® EM 90 reference at 50 nm. Therefore claims 44, 76, and 81-83 are obvious over Roulier

et al. in view of Omura et al. and Krzysik et al. and Katsuyama et al. as evidenced by the Abil® EM 90 reference.

Claims 44, 76, 81, and 84-85 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roulier et al. in view of Omura et al., Krzysik et al., and Katsuyama et al. as evidenced by the Abil® EM 90 reference as applied to claims 44-50, 58-61, 64-66, 76, 78-80, 86, and 88-91 above, and further in view of Wendel et al.

Roulier et al. in view of Omura et al., Krzysik et al., and Katsuyama et al. as evidenced by the Abil® EM 90 reference make obvious the composition of claim 44 with zinc oxide nanopigment and sunscreen actives (see instant claims 44, 76, and 81). This modified reference does not explicitly teach both 3-methylbenzyldiene camphor and isoamyl p-methoxycinnamate in the composition as sunscreen agents.

Wendel et al. teach compositions with combinations of ultraviolet light filters where zinc oxide particulates less than 300 nm are envisioned (see paragraphs 31-32). Additional UV filters are also taught that include 3-(4-methylbenzyldiene) camphor and isoamyl p-methoxycinnamate (see paragraphs 80 and 92; instant claims 84-85).

"It is *prima facie* obvious to combine two compositions each of which is taught by the prior art to be useful for the same purpose, in order to form a third composition to be used for the very same purpose.... [T]he idea of combining them flows logically from their having been individually taught in the prior art." *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980) see MPEP 2144.06. Therefore since zinc oxide nanopigment, 3-(4-methylbenzyldiene) camphor, and isoamyl p-

methoxycinnamate are all known as UV filters, it would have been obvious to one of ordinary skill at the time of the invention include all three of them as the sunscreen agents in the composition of Roulier et al. in view of Omura et al., Krzysik et al. and Katsuyama et al. as evidenced by the Abil® EM 90 reference. Therefore claims 44, 76, 81, and 84-85 are obvious over Roulier et al. in view of Omura et al., Krzysik et al., Katsuyama et al., and Wendel et al. as evidenced by the Abil® EM 90 reference.

(9) Response to Argument

Appellants quote a set of statements from a rejection whose focus is the limitations of claims 76, 81, and 84-85 then use this as the basis for an argument that the rejection fails to meet the limitations of claim 44 regarding the polyvalent ester. In a another rejection directed specifically toward limitations of claim 44, Roulier et al. is highlighted as teaching a cosmetic emulsion in the form of a skin care or makeup product with waxes that are envisioned as fatty esters with a melting temperature above 65°C (see column 3 lines 4-5 and 8-12). Krzysik et al. is then cited as a reference who teaches compositions whose purpose is to care for skin and also envisioned fatty acid esters as components that have a melting point above 35°C in their composition (see column 4 lines 5-9 and 14-17 and column 5 lines 45-46 and 64-65). Fatty esters and fatty acid esters are two expressions for the same class of materials. Within this set of components taught by Krzysik et al. is pentaerythritol tetrabehenate, a fatty acid ester that meets the desires of Roulier et al. based upon its readily obtainable melting point (MP = 81°C) (see column 5 lines 45-46 and 64-65, column 6 line 16). As a fatty acid

ester that has the preferred melting point that was known for its utility in compositions that care for skin, it would have been obvious for the artisan of ordinary skill to select pentaerythritol tetrabehenate for the composition of Roulier et al. as the simple substitution of one known element for another to yield a predictable result. This combination of references meets the limitations of the polyvalent ester in claim 44. There is no evidence of record that demonstrates an unexpectedly superior product as a result of the selection of pentaerythritol tetrabehenate as the fatty ester of Roulier et al., therefore the artisan of ordinary skill has good reason to select it as a known functionally equivalent fatty ester for the cosmetic compositions of Roulier et al.

As appellants note, Roulier et al. do not explicitly recite polyvalent esters, however, the selection of such a component is embraced by their teaching of fatty esters that have a melting temperature above 65°C.

Although sunscreen agents are not required in the limitations of claim 44, in the arguments presented in favor of its allowance appellants argue that the discussion of Roulier et al. teaching sunscreen agents in column 4 lines 17-26 is not accurate because the wording "sunscreen" could not be found in the cited location. Appellants omitted the rest of the citation that accompanied this statement in the rejection which points to column 5 lines 36-37 where the words can be found. Even in the absence of such a citation, whose presence is not strictly required in the rejection, Roulier et al. explicitly teach sunscreen agents in the description of their invention.

Appellants further argue that there are no teachings in Krzysik et al. of cosmetic applications of their compositions beyond cosmetic cleansing and that appellant's

description of the invention does not hint at cleansing products. The claims still recite a "skin care agent", which embraces cleansing products. In addition, the compositions of Krzysik et al. deal with both cosmetic cleansing and skin care which are also of focus in Roulier et al. It is well known in the art that many ingredients are common across the spectrum of skin care, skin cleansing, and makeup compositions. These classes of compositions can all fall under the umbrella of "cosmetic" preparations. As an example, petrolatum is found in skin cleansers, skin moisturizers, sunscreen lotions, as well as lipsticks. Absent some teaching to include a particular component in one type of cosmetic composition and exclude it from another, the artisan of ordinary skill has good reason to utilize ingredients in multiple classes of these compositions when their usefulness is explicitly taught or suggested. In the instant case, Krzysik et al. teach fatty acid esters with a melting point above 35°C that are suitable for use in compositions intended to protect or repair skin as well as cosmetic skin cleansing applications while Roulier et al. desire fatty esters that have a melting temperature above 65°C for their compositions used to treat, care for, protect or cleanse the skin as well as those in the form of skin and lip make up products. This set of teachings provides a case where a single group of components have a usefulness that is explicitly taught or suggested in multiple classes of cosmetic compositions. Appellants have not pointed to any evidence or teachings that would explicitly direct the artisan away from selecting a polyvalent ester of the invention from the fatty esters suggested by Roulier et al. and named by Krzysik et al.

Appellants go on to argue that there is no teaching in Krzysik et al. to use fatty esters and that they teach the selection of solidifying agents from alkyl silicones (silicon), polypropylene (polymer), zinc stearate (soap) and mixtures of these compounds. The teaching of solidifying agents that are named in addition to pentaerythritol tetrabehenate which are highlighted by appellants do not negate the teaching of pentaerythritol tetrabehenate as a desirable option. Further, fatty esters and fatty acid esters are two expressions for the same class of materials. Krzysik et al. teach fatty acid esters with a melting point above 35°C as solidifying agents therefore they teach fatty esters with this same melting point. When Krzysik et al. enumerate particular compounds as solidifying agents, fatty acid esters, namely pentaerythritol tetrabehenate, are among them. Only a subset of the named solidifying agents of Krzysik et al. meet the preference presented by Roulier et al. of waxes having a melting temperature above 65°C. Fatty esters are a named variety of these waxes in Roulier et al. and pentaerythritol tetrabehenate falls in this category and meets the melting temperature requirement.

Appellants also argue that the combination of Krzysik et al. and Roulier et al. is not obvious because the documents are not useful for the same purpose. Both documents teach compositions that are useful for the same purpose of caring for skin. While the means of contacting the skin with their taught compositions can vary and include brushes, webs (absorbent or otherwise), pads, as well as fingertips, there is still a common utility for the compositions. In contrast to appellant's characterization, Krzysik et al. do in fact teach cosmetic compositions. The moniker "cosmetic" is very broad and

includes compositions that decorate, protect, as well as improve the appearance of skin, as evidenced by appellant's own wording in claim 90 and page 5 lines 24-30 of the specification. Based upon this discussion of compositions included by the term "cosmetic", the compositions of Krzysik et al. and Roulier et al. are embraced by this descriptor. Therefore the statement that Krzysik et al. teach a set of fatty esters with a melting point above 35°C suitable for use in cosmetic compositions has merit. Although appellant also argues that polyvalent esters are not taught for general cosmetic use by Krzysik et al., this reference does teach them for use in compositions that care, clean and protect skin which both the instant compositions and those of Roulier et al. also seek to do.

Claim 44 is not defined over the prior art, as appellant argues. Appellant further reiterates or repeats arguments that are addressed above in support of this conclusion. In addition, appellant argues that the prior art does not teach or appreciate that the non-volatile silicone oils in combination with the volatile silicone oils and other components allow for the solid phases to be integrally incorporated into a stable preparation. This argument appears to be an allegation of unexpected results, but it is not substantiated by evidence which demonstrates an unexpectedly superior performance of the instant invention over the prior art.

Appellant asserts that that there are inadequate teachings of the nanopigment material that is claimed. Katsuyama et al. teach ultraviolet-screening zinc oxide particles for sunscreen purposes that are sized at 50 nm to 100 nm in topical compositions (see column 2 lines 12-23 and example 4). Known topical sunscreen agents are obvious to

incorporate in the composition of Roulier et al. because they explicitly say to do so. The particles of Katsuyama et al. meet the claim limitations for nanopigments and the appellants have provided no particular arguments that state otherwise.

The combination of nanopigments with each of the two claimed light filtering substances was known as a sunscreen agent. Therefore the preparation of a sunscreen agent from the combination of all three components would flow logically from the pairs having been taught individually in the prior art (see *In re Kerkhoven*, 626 F.2d 846, 850, 205 USPQ 1069, 1072 (CCPA 1980)). Although appellant argues that they are the only ones who teach such a combination, the combination would have been obvious from the prior art.

Finally, appellants argue that four references were combined to generate the obviousness rejection and that the rejection is predicated on improper hindsight reconstruction. In response to appellant's argument that the examiner has combined an excessive number of references, reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. See *In re Gorman*, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991). In response to appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the appellant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d

1392, 170 USPQ 209 (CCPA 1971). Here, the rejections only rely upon the knowledge that was held by the artisan of ordinary skill and does not improperly utilize knowledge from appellant's disclosure. Therefore a valid and proper *prima facie* case of obviousness has been made against the instant claims.

(10) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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Examiner, Art Unit 1615

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/Robert A. Wax/
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